

REMARKS

Claims 1, 3-8, and 10-14 are pending in the above-identified application. Claims 1, 3, 4, 6, 8, 10, 11, and 13 are independent.

Interview

The Examiner is thanked for taking the time to hold a telephone interview. During the interview the Examiner indicated that amending the claims to recite "boot ROM comprising a control program" would help to overcome the rejection based on the Omichi reference.

Claim Objection

Claim 9 has been objected to as claiming the same limitations as in parent claim 8. Accordingly, claim 9 has been canceled. Applicants respectfully request that the objection be withdrawn.

Claim Rejection

Claims 1-4, 6, 8-11, and 13 have been rejected under 35 U.S.C. 102(b) as being anticipated by JP 01-223586 of Omichi et al. (referred to as Omichi). Applicants respectfully traverse this rejection.

The microcomputer of the present invention includes a boot ROM that enables automatic control of the testing process. The boot ROM contains a program to operate the communication circuit 14 (Specification at page 14, lines 4-14). Upon receiving a single command from an external communication device

(e.g., 20 in Figure 1), the program sets the conditions necessary for transfer and performs transfer of the test program from the external communication device to the RAM. The program runs the test program and sends the test results to the external communication device (see Figure 3). Thus, communication between the IC card and the external testing device is initiated by a single command such that the microcomputer automatically performs processes, from the reception of various test programs to the outputting of test result data. Therefore, the present invention efficiently performs simultaneous testing of a large number of IC cards automatically, because the number of communications to be performed between the IC card and the external testing device is small and the work load on the external testing device is little.

The Office Action presents an argument that the claims do not recite wherein the boot ROM comprises a control program. The claims had recited a boot ROM in which a control program. Accordingly, the claims have been amended to recite "boot ROM comprising a control program ..." in order to clarify that the boot ROM includes the control program. It is noted that claims 3 and 10 had already claimed such a relationship, stating the phrase "having stored."

Omichi

Omichi teaches a data block inputted from the external device into the IC card. The IC card, based on the data, identifies the mode and stores the test program. Then, the IC card performs a series of testing on writing data into the

RAM, reading the data from the RAM and ROM, deleting data in the RAM, or sending the data from the RAM and ROM, in accordance with the "operation test program starting command" inputted from the external apparatus (testing device). Thus, Omichi requires frequent communication with the external testing device during the testing and a large work load.

Omichi does disclose a ROM. However, Applicants submit that Omichi does not teach or suggest at least the claimed boot ROM comprising a control program, as recited in the claims. Accordingly, Applicants submit that Omichi fails to teach or suggest each and every claimed element of claims 1-4, 6, 8-11, and 13.

Claim Rejection – 35 U.S.C. 103

Claims 5, 7, 12, and 14 have been rejected under 35 U.S.C. 103 as being unpatentable over Omichi in view of Lin et al. (U.S. Patent 5,818,848, hereinafter Lin). Applicants respectfully traverse this rejection.

Lin

Lin discloses an integrated circuit having an Automatic Program and an Erase Mode Circuit. In accordance with the automatic program, only the specific predetermined tests stored in the integrated circuit is carried out. Thus, Lin's integrated circuit does not perform a large number of kinds of test programs or later added test programs.

Differences between Lin and the present invention

Lin's integrated circuit uses its I/O port for communication with the external testing device. As in the above for Omichi, Lin does not appear to disclose a boot ROM including a control program. Thus, communication and control are not possible using Lin's integrated circuit.

The present invention, on the other hand, includes a boot ROM. The boot ROM stores in advance therein a control program including the process of, in accordance with the test command inputted from the external testing device, (i) receiving a test program for nonvolatile memory and locating the test program on the RAM (ii) executing the test program, and (iii) outputting the test result to the outside. Thus, communication between the IC card and the external testing device is executed using a single command.

Omichi and Lin, either alone or in combination, teach or suggest at least the claimed boot ROM including the control program. Thus, Applicants submit that the rejection fails to establish *prima facie* obviousness. Applicants respectfully request that the rejection be withdrawn.

CONCLUSION

In view of the above amendments and remarks, reconsideration of the various rejections and allowance of claims 1, 3-8, and 10-14 is respectfully requested.

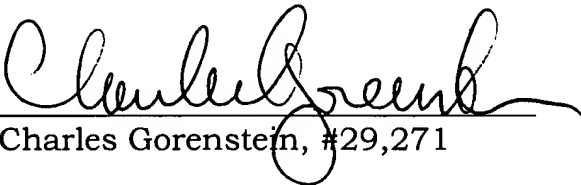
Should the Examiner have any questions concerning this application, the Examiner is invited to contact Robert W. Downs (Reg. No. 48,222) at (703) 205-8000

in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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